

Progress Report October-November 2023

Our project team finally sprung into action, returning to the plateau as soon as we received news of a gradual reduction in the intensity of the September heavy rains. As planned, we surveyed the plateau at every sunshine opportunity, while community engagement activities occurred in cloudy or rainy days. Out of the outlined threatened species in this project, only *Allocnemis vicki* was sighted during the October-November survey. However, a significant discovery from the survey of this period is the adult female of the regionally vulnerable dragonfly, *Afroaeschna scotias*, which was observed and recorded while ovipositing in one of the surveyed streams. This is the first field photograph of the species in Nigeria, and the discovery helps confirm the identity of larvae of the family recorded earlier from Obudu.



Obudu community field assistants on the way back from a field survey with field team 1



Obudu Community Field Assistant 1, leading field team 2 through a rough terrain to the Avase Cataracts



The endangered *Allocnemis vicki*, photographed at the Becheve Nature Reserve Stream, Obudu



The regionally vulnerable dragonfly, *Afroaeschna scotias* observed ovipositing at the Avase Cataract area, Obudu

After the surveys, we continued with engagement of the local communities. We reached out to primary and secondary schools within the villages on the plateau, to create awareness. A major activity i.e., stream channel blockage to trap tadpoles for food, being carried out by mostly citizens below 18 years in the Obudu communities on the stream poses serious threat to the larvae of the damselfly species, which stimulated the interest to address the children. Prior to the visit, we had designed and printed 100 copies of jotting notes with a branded cover titled “My Red Book of the Special Damselflies of Obudu”, and containing field photographs and information on each threatened species. The notes were distributed to students and tutors, to create more awareness on the call to action on the species and their habitats.



Blockage of sections of the stream channels with piles of stones as in the above picture affect the breeding larvae of damselflies by physical displacement of microhabitat and disruption in physicochemical condition of the stream sections.





Community Outreach to Basic and High School Students and Tutors within communities on the Obudu Plateau

My Red Book of The Special Damselflies of Obudu

Scientific Name: *Allocnemis vicki*
Common Name: **Blue-shouldered Yellowwing**
Status: **Endangered**

Scientific Name: *Pentaplebia stahli*
Common Name: **Red Relic**
Status: **Vulnerable**

Scientific Name: *Nubiolestes diotima*
Common Name: **Cameroon Sparklingwing**
Status: **Endangered**

Scientific Name: *Umma mesumbel*
Common Name: **Cameroon Sparklingwing**
Status: **Endangered**

Scientific Name: *Nubiolestes diotima*
Common Name: **Cameroon Sparklingwing**
Population: **Reducing**

Scientific Name: *Africocypha centripunctata*
Common Name: **Banded Jewel**
Status: **Endangered**

Scientific Name: *Neurolestes nigeriensis*
Common Name: **Gamble's Flatwing**
Status: **Critically Endangered**

Scientific Name: *Pentaplebia gamblesi*
Common Name: **Obudu Relic**
Status: **Critically Endangered**

All these beautiful damselfly species are found here in Obudu. However, their numbers are greatly reducing day by day because of bush burning, water pollution and deforestation. To protect these species from going extinct, we can do the following:

- Keep our streams and rivers clean
- Stop deforestation and bush burning
- Stop rearranging rocks in the streams and rivers
- Tell someone whenever you find these damselflies

This message is brought to you by: Obudu Dragonfly and Damselfly Conservation Club (ODDCC)

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in conjunction with the Obudu Threatened Species Survival Coalition (OTSSC)
Co-founded by Abiodun M. Adedapo and Kevin Eyos

Protecting the Obudu montane forests, freshwaters and species for future generations

The Rufford Foundation
www.rufford.org @ruffordfunds

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All photos were taken in Obudu

صندوق محمد بن زايد للمحافظة على الكائنات الحية
The Mohamed bin Zayed Species Conservation Fund

Cover Page design of distributed jotting notes to students within communities of the Obudu Plateau

Next, we had the general meeting of the Obudu Dragonfly and Damselfly Conservation Club (ODDCC) and the Obudu Threatened Species Survival Coalition. In that meeting, Mr. Kevin Eyos was selected as the first President of the ODDCC, while Mr. Godgift, Mr. Sabastine Boakem and Miss Grace Utibe were selected as Vice President, Secretary, Assistant Secretary, respectively. Three additional members joined the club, bringing the membership list to 30. In the meeting, it was agreed that the club would commence monthly BioBlitz within the local community forests, starting from December.



Meeting of the ODDCC, and election of executives



Some of the executives of the ODDCC, with project team members

January-February 2024

We returned to the plateau in January to commence the final dry season survey and community engagement efforts. Highlights of the survey include sightings and photography of adults of the critically endangered *Neurolestes nigeriensis*. The photos taken during this trip constitute the second set of photos of the species in Nigeria. Furthermore, *Africocypha centripuncta* was observed to be emerging to adults around this time. Left over emergent skin of the species (exuvia) was observed around newly emerged and teneral adults. Ecological notes on the species were taken, and the exuvia of *A. centripunctata* was collected to aid the first larval description of the species.



Obudu Plateau landscape in the dry season



Dark areas on the rocks are remnants of bush burning activities

Adult of the critically endangered *Neurolestes nigeriensis* photographed at the Becheve Nature Reserve, Obudu



Adult of the endangered *Africocypha centripunctata* photographed at the Afundu Stream, Obudu



Community engagement also continued, and the ODDCC members were trained on how to record biodiversity observations and upload on the iNaturalist platform. The branded notes on the threatened species were also shared to all members of the ODDCC and all participants around. Two Officers of the Becheve Nature Reserve were also present at the event and admonished fellow members to be environmentally friendly. Finally, we mobilized the club by making a donation of some basic biomonitoring equipment to the club such as dragonfly nets, monoculars, and macro lens attachments for mobile phones. Some of the nets and lens attachment donated to the club were courtesy of equipment donation from IdeaWild.



Members of the ODDCC, after a brief citizen science education workshop in January





ODDCC community members practicing the observe, photograph, release process in the field, using new equipment donated to the club

April - May, 2024

Based on findings from April-May, 2023, especially relating to *Pentaplebia* species on the plateau, I discovered that the best period for sighting the species was between April and May, as the period aligns with the emergence of the larvae into adults. Therefore, the priority of the April-May survey was set for the Critically Endangered *Pentaplebia gamblesi*, in addition to community engagement and assessment of all effort so far. The survey started from areas of highest potential for harbouring the species such as the Afundu Streams, where an ultimate larva and an exuvia (left over skin when the larvae emerge into adults) was found, but no adult. Live photos of the larvae in water were obtained, while the exuvia was collected for our ultimate confirmation by genetic analysis, if no adult of *P. gamblesi* is sighted by the end of the project.



Exuvia of *Pentaplebia* collected at the Afundu Stream for genetic analysis



Piles of cattle dung spread uphill of the Afundu Stream Valley

Next, we surveyed the Monkey Face View Valley, in order to determine what *Pentaplebia* species occupied the mountain range adjacent to the plateau, as the ecological condition indicated the possibility of supporting the relic damselfly. Although we anticipated minimal human activities in the very deep and steep valley, we were surprised to find plantations down the valley, coupled with traps for rodents and monkeys and we met farmers on the way to their farms in the valley as we climbed down. In the Monkey Face View Valley, six adult males and one adult female of the Vulnerable *Pentaplebia stahli* were observed and photographed at an interval of between 100 m and 200 m each, from upstream of the freshwater system running through the valley, downstream. Some larvae of the species were also found, but no exuvia.

Male of *Pentaplebia stahli* observed at the Monkey Face View Valley



Female of *P. stahli* observed at the Monkey Face View Valley



Other threatened species found in the valley are *Allocnemis vicki* (one adult male) and *Africocypha centripunctata* (one adult male and one adult female). These were in addition to widespread odonates such as *Orthetrum camerunense*, *Sapho orichalcea*, *Tetrathemis camerunense*, and the Farm Bush Sprite, *Pseudagrion melanicterum* which shows evidence of farming activities around the valley. There were two other special discoveries at this location. One is the first photographic record of the Data Deficient *Libyogomphus mamfei*, in Nigeria, and what may be the first photographs of the adult of this species was taken. This species was known to be endemic to Cameroon until this present discovery. The other is the second record of *Idomacromia proavita* in Nigeria.



Adult male of *Africocypha centripunctata*, photographed at the Monkey Face View Valley



The record of the data-deficient *Libyogomphus mamfei* from Obudu in this project is one of the first photographs of this species



Additional discoveries in this project include the second record of *Idomacromia proavita* in Nigeria

These important odonate discoveries at the Monkey Face View Valley, in addition to other findings on threatened monkeys and birds support the plans by our newly formed Obudu Threatened Species Survival Coalition (OTSSC) to add this site to our list of sites for immediate protection. In a series of conversation I had with my co-founder of the coalition, Kevin Eyos during a bird-odonate watching trip to the Becheve Nature Reserve the next morning, we highlighted all identified sites on the plateau that should be prioritized for conservation, and with the support of Kevin as the president of both the Obudu plateau community youth and the Obudu Dragonfly and Damselfly Conservation Club (ODDCC), I was assured of the full cooperation of the community as soon as plans are in place for the protection of the priority sites. The coalition is made up of individuals that have carried out species conservation projects on the plateau, in order to scale up all projects into full habitat protection of key sites on the plateau, with the support of the community, government, NGOs and other funding organizations.

The Obudu Relic survey continued to other listed sites in the quadrat, but yielded no sighting of the genus as the ecological conditions of most of the sites were not favourable for supporting the species. Only a few individuals of *A. centripunctata* and one *A. vicki* was sighted in the remaining surveyed sites. A photographic record of one of the varying colorations of the young *Africocypha centripunctata* was also a highlight of the remaining surveys. As the survey continued, our community engagement also persisted based on our encounters of community people while in and out of the field. The question of what would make the community people desist from returning to farms in the valley always had a common answer relating to the provision of alternative means of sustenance for their families.



Photographic evidence of the blue-abdomen form of the young *A. centripunctata* obtained at the Afundu Stream, Obudu

Next, the ODDCC had her monthly BioBlitz, where we welcomed a new member to the club. The club surveyed the Izul-Vacha Stream that meanders through two villages on the ranch. There, we had two records of *A. centripunctata*, one record of *A. vicki* and two records of a new species of *Neodythemis* which was discovered during the 2022 survey with our Dutch friends. The most common sighting at the BioBlitz was the Farm Bush Sprite, and the Wandering Glider. After a refresher on the catch-photograph-release-record session during the BioBlitz, all participants successfully performed the technique, and the interest grew so much that it became a BioBlitz challenge. Some of the sightings have been uploaded to the iNaturalist Citizen Science platform [Dragonflies and Damselflies of the Obudu Plateau · iNaturalist](#), while some were uploaded to our newly formed Facebook Page of the Cross River Dragonflies and Damselflies Conservation Club, [Cross River Dragonflies and Damselflies Conservation Club | Facebook](#). The page contains major national stakeholders, local community club members, other enthusiasts and the general public.



Demonstrating the observe-photograph-release-record process during the ODDCC April Bioblitz

The BioBlitz was followed by a second installation of the permanent information panel on the threatened damselflies, following a major damage by wind to the first installation. The second installation was reinforced on all ends and the size reduced, following recommendations by the community on dimensions of panels that last long on the plateau. Everyone participated in the installation, and it was another opportunity to spread more awareness on the threatened species and their habitats.



Second installation of the reinforced information panel on the threatened damselflies of Obudu, following the damage of the first installation by extreme weather conditions

Next, we were able to meet and discuss with more stakeholders on the plateau, relating to our quest for a permanent protection of the sites. We were happy to meet and discuss with officials of the Wildlife Conservation Society (WCS) Nigeria, who were on an inspection of their project on the plateau. The society has been instrumental to spreading awareness on the results of our survey of dragonflies and damselflies in Cross River State. A documentary on the project was scheduled with AFP International News Agency, to cover our final survey and community engagement program, but a last minute reschedule from the reporters affected the timing. Hence, our photographic and video compilation of the project are presently being used to spread more awareness on the internet. A press release on the project has also been made via <https://mainlandmetronews.com.ng/2024/05/07/obudu-montane-ecosystem-needs-protection-conservation-group-warns-of-endangered-species/> and other national and international media outlets are showing interest in sharing outcomes of this project.

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